

DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)

BOARD AND CODE ADMINISTRATION DIVISION

#### **NOTICE OF ACCEPTANCE (NOA)**

PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/pera/

MIAMI-DADE COUNTY

Oldcastle BuildingEnvelope™ 803 Airport Road Terrell, TX 75160

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "ZS-2750" Aluminum Project Out Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 11–197, titled Series "ZS–2750 Project Out Aluminum Window System - Large Missile Impact Resistant", sheets 1 through 4 of 4, dated 11/29/11 with revision #1 dated 11/29/11, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, Jr., P. E., bearing the Miami–Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami–Dade County Product Control Section.

#### MISSILE IMPACT RATING: Large Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA revises NOA # 10-1214.17 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

MIAMIDADE COUNTY
APPROVED

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NOA No. 12-0109.03 Expiration Date: May 05, 2015 Approval Date: March 01, 2012 Page 1

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 1. Drawing No 11–197, titled Series "ZS–2750 Aluminum Project Out Window System Large Missile Impact Resistant", sheets 1 through 4 of 4, dated 11/29/11 with revision #1 dated 11/29/11, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, Jr., P. E.

#### A. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of aluminum projected window system, prepared by Architectural Testing, Inc., Test Report No.

ATI 94443.02–801–18, dated December 16, 2009, signed and sealed by Joseph A. Reed, P. E.

(Submitted under previous NOA No.10 -0224.03)

#### C. CALCULATIONS

- 1. Anchor calculations and structural analysis, complying with FBC–2007 and FBC-2010, prepared by Tilteco, Inc., dated 02/05/10 and updated on 01/06/12, signed and sealed by Walter A. Tillit, Jr., P. E.
- 2. Glazing complies with ASTM E1300-04

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

#### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 08–1224.04 issued to Solutia, Inc. for their "Saflex Composites Glass Interlayer with PET Core" dated 02/25/09, expiring on 12/11/13.
- 2. Notice of Acceptance No. 08–0508.02 issued to Viracon, Inc. for their "StormGuard Glass Interlayer", dated 07/03/08, expiring on 04/14/13.

Manuel Perez, P.E. Product Control Examiner NOA No. 12-0109.03

Expiration Date: May 05, 2015 Approval Date: March 01, 2012

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### F. STATEMENTS

- 1. Statement letter of conformance, complying with FBC-2007 and FBC-2010, dated January 6, 2012, signed and sealed by Walter A. Tillit, Jr., P.E.
- 2. Statement letter of conformance and no financial interest, dated February 05, 2010, both signed and sealed by Walter A. Tillit, P. E. (Submitted under previous NOA No.10 –1214.17)
- 3. Statement letter of name change, dated October 19, 2010, signed by Jacqueline D. Asset transfer agreement dated April 20, 2010, signed by Mr. James Avanzini.
- 4. Butler, Corporate Paralegal/ Legal Assistant.

  (Submitted under previous NOA No.11-0222.05)
- 5. Laboratory compliance letter for Test Report No. **ATI 94443.02–801–18**, issued by Architectural Testing, Inc., dated December 16, 2009, signed and sealed by Joseph A. Reed, P. E. (Submitted under previous NOA No.10 –0224.03)

#### G. OTHERS

1. Notice of Acceptance No. 10–1214.17, issued to Oldcastle BuildingEnvelope, Inc. for their Series "ZS–2750" Aluminum Casement/ Project Out Window – L.M.I., approved on 01/13/10 and expiring on 05/05/15.

Manuel Perez, P.E.
Product Control Exampler
NOA No. 12-0109.03
Expiration Date: May 05, 2015
Approval Date: March 01, 2012

## **GENERAL NOTES AND SPECIFICATIONS:**

1. SERIES ZS-2750 PROJECT OUT ALUMINUM WINDOW SYSTEM, SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 & 2010 EDITIONS OF THE FLORIDA BUILDING CODE. THIS PRODUCT MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (MIAMI-DADE/BROWARD COUNTIES).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODES, USING ASCE 7-05 STANDARD FOR INSTALLATIONS UNDER 2007 FBC & ASCE 7-10 FOR INSTALLATIONS UNDER 2010 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATING INDICATED ON NOTE 2 BELOW. IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.

IN ORDER TO VERIFY THAT ANCHORS ON THIS P.A.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS.

THIS PRODUCT'S ADEQUACY FOR IMPACT AND WIND RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODES AS PER PROTOCOLS TAS-201, TAS-202, TAS-203 AS PER ARCHITECTURAL TESTING LAB REPORT # 94443.02-801-18 AND AS PER SUBMITTED STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTION 1612 OF THE FLORIDA BUILDING CODE. THIS PRODUCT IS ALSO APPROVED FOR WATER AND AIR INFILTRATION AS PER PROTOCOL TAS-202, PER SECTION 2411.3.2 OF THE FLORIDA BUILDING CODE,

### 2. MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR THIS PRODUCT SHALL BE +60 paf, -60 paf.

- 3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER (UNLESS OTHERWISE NOTED), PER ASTM B221, WITH Fy = 25.0 ksi MINIMUM. THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON THIS DRAWING.
- 4. ALL ALUMINUM IN CONTACT WITH DISSIMILAR MATERIALS MUST BE PAINTED PER SECTIONS 2003.8.4.2.. 2003.8.4.4, 2003.8.4.5 AND 2003.8.4.6 OF THE FLORIDA BUILDING CODE AS APPLICABLE.
- 5. ALL SCREWS USED FOR ASSEMBLY CONNECTIONS (METAL TO METAL) TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 AND SECTION 2411.3.3.4 OF THE FLORIDA BUILDING CODE WITH 50 kgl YIELD STRENGTH AND 90 kgl TENSILE STRENGTH.
- 6. ANCHORS NOTES, ANCHOR'S TYPE TO SUBSTRATE SHALL BE AS FOLLOWS:
- (d) TO EXISTING 1/8" MIN. THICK METAL, ALUMINUM (6063-T6 ALLOY) OR STEEL (Fy ≥ 33 KSI):
- #12-14x1" HWH DRIL-FLEX® STRUCTURAL SELF-DRILLING FASTENER AND #12x1" PHILLIPS FLAT HEAD HD A POINT FASTENER AT HINGE LOCATION W/ MIN. 1" EDGE DISTANCE, AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 7. ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE FASTENER'S MANUFACTURER.
- 8. PRODUCT INSTALLATION SHALL ONLY BE PERFORMED INTO EXISTING STRUCTURE CONSISTING OF 1/8" MIN. THICK ALUMINUM OR STEEL FRAME STRUCTURE AND SHALL COMPLY WITH SECTIONS 2411.4.1 & 2411.4.2 OF THE FLORIDA BUILDING CODE AND WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
- 9. PROVIDE 1/8" MAX. BEARING SHIM SPACE (TYP.).

#### 10. THIS PRODUCT SYSTEM WILL NOT REQUIRE A HURRICANE PROTECTION DEVICE

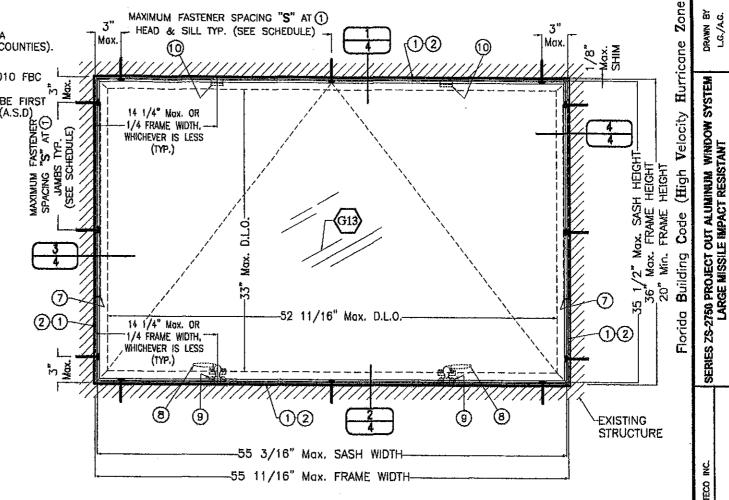
- 11. PROVIDE DOW CORNING 795 & 995 SEALANT TYPICAL AT ALL FRAME AND GLASS JOINTS PER BILL OF MATERIALS, SHEET 3 OF 4.
- 12. REMAINING COMPONENTS FOR THIS PRODUCT SHALL BE AS INDICATED ON BILL OF MATERIALS, SHEET 3 OF
- 13. PRODUCT'S MANUFACTURER LABEL SHALL BE PLACED ON A READILY VISIBLE LOCATION ONE LABEL SHALL BE PLACED FOR EVERY OPENING, LABEL SHALL READ AS FOLLOWS:

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BuildingEnvelope™

TERRELL TX. MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

- 14. (a) THIS P.A.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
- (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.A.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (c) THIS P.A.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D.
- (e) ORIGINAL P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



11/29/11 DATE

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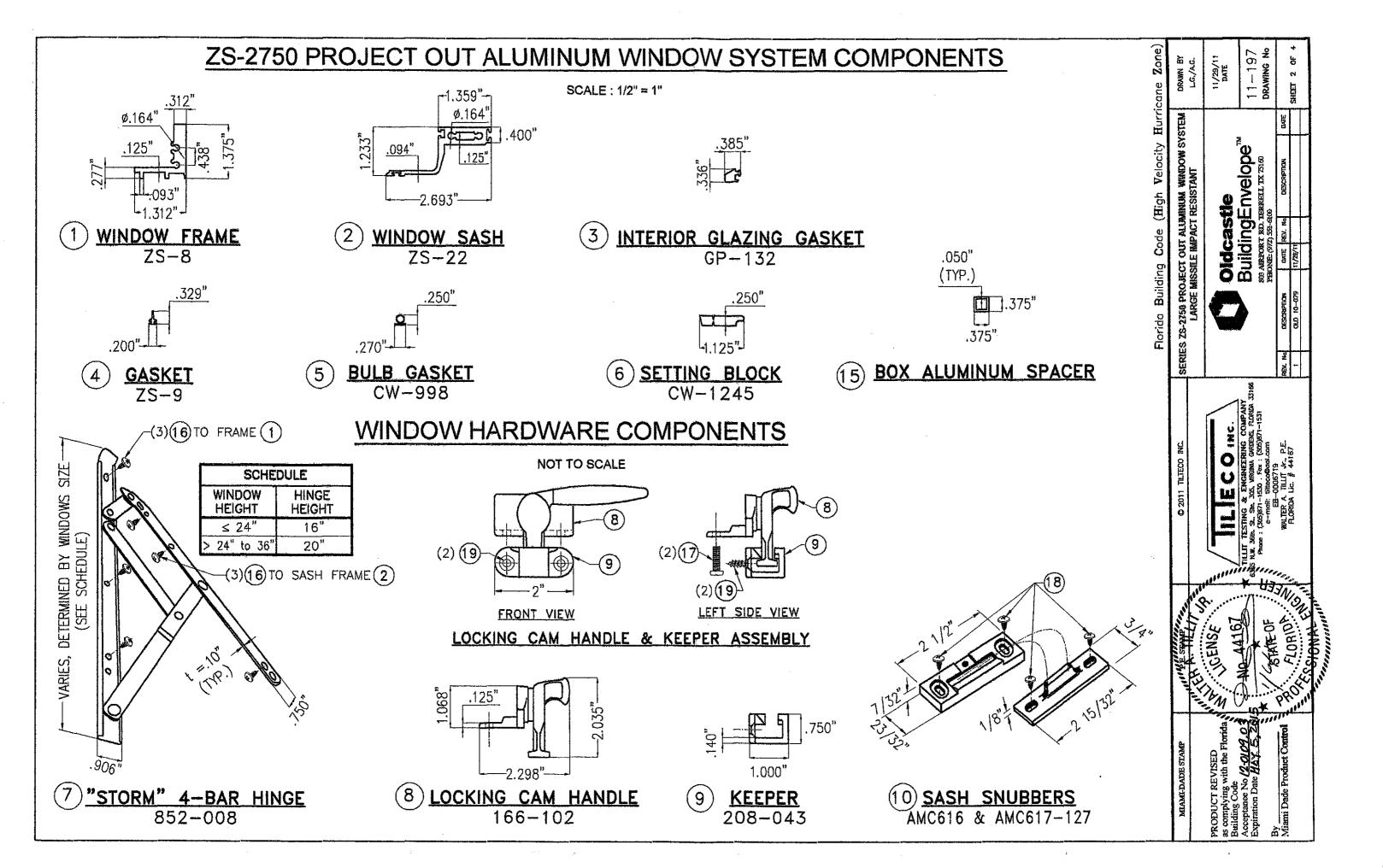
WILLIAM STATES

SERIES

# ZS-2750 PROJECT OUT ALUMINUM WINDOW SYSTEM TYPICAL EXTERIOR ELEVATION

SCALE: 3/32" = 1"

MAXIMUM FASTENERS SPACING "S" SCHEDULE							
LOCATION	MAX. A.S.D 1/8" MIN. THICK METAL, ALUMINUM (6083-T6 ALLOY) OR STEEL (Fy ≥ 33 KSI)  PRESSURE SELF DRILLING FASTENERS (SEE NOTE #6 (a))						
	≤ ±48.0 15" o.c.						
JAMBS	≤ ±55.0 15" o.c.						
	≤ ±60.0 14" o.c.						
	≤ ±30.0 24" o.c.						
LIEAD O CUL	≤ ±35.0 24" o.c.						
HEAD & SILL	≤ ±42.0 20" o.c.						
	≤ ±60.0 14" o.c.						



GLASS SCHEDULE							
GLASS LABEL	GLASS COMPOSITION	MANUFACTURER NAME	MAXIMUM D.L.O.				
(G13)	1 1/18" NOMINAL INSULATED GLASS CONSISTING OF 1/4" H.S. GLASS AT EXTERIOR — 3/8" AIR SPACE — (2) 3/18" H.S GLASS W/ 0.075" THICK VANCEVA™/STORMGLASS™ COMPOSITE INTERLAYER	SOLUTIA, INC./ OLDCASTLE GLASS, INC.	52 11/16" WIDE X 33" HIGH				

TYPICAL WINDOW GLASS SIZE = D.L.O. + 1"

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## CORNER ASSEMBLY DETAILS

SERIES 2S-2750 PROJECT OUT ALUMINUM WINDOW SYSTEM LARGE MISSIE MAPACT RESISTANT

Oldcastle BuildingEnvelope™ ™ ARTHELL IX SER

(SEE NOTE 5, SHEET 1)

ITEM No.	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1.	ZS-8	WINDOW FRAME	1.312" x 1.375"	6063 - T6 ALUMINUM	OGEP	
2.	ZS-22	WINDOW SASH	2.693" x 1.233"	6063 ~ T6 ALUMINUM	OGEP	
3.	GP-132	INTERIOR GLAZING GASKET	.385" x .336"	EPDM	TREMCO	LOCATED AT WINDOW SASH
4.	ZS-9	GASKET	.200" x .329"	SANTOPRENE	EPG/TRELLBORG	LOCATED AT WINDOW SASH
5.	CW-998	BULB GASKET	.270" x .250"	FOAM FILLED-TITE BULB	AMESBURY	LOCATED AT WINDOW SASH
6.	CW-1245	SETTING BLOCK	1.125" x .250" x 4"	EPDM	EPG/TRELLBORG	LOCATED AT WINDOW SASH
7.	852-008	"STORM" 4-BAR HINGE	.10" THK. TYPICAL & HEIGHT DETERMINED BY WINDOW'S SIZE (SEE SHEET 2 OF 4)	304 STAINLESS STEEL	BRONZE CRAFT	ONE HINGE (FITS .625"Min708"Max. WINDOW CAVITY) LOCATED AT EACH JAMB, CHANNEL FASTENED TO WINDOW'S FRAME & BAR FASTENED TO WINDOW'S SASH AS INDICATED ON SHEET 2 OF 4.
8.	166-102	LOCKING CAM HANDLE	2.00" x 2.035" x 2.298" DEPTH	420 MANGANESE BRONZE	BRONZE CRAFT	AT SASH, LOCATED 4 14 1/4" o.c. Max. OR 1/4 FRAME WIDTH, WHICHEVER IS LESS
9.	208-043	KEEPER	2.00" x .750" x 1.00" DEPTH	415 ALUMINUM BRONZE	BRONZE CRAFT	AT FRAME, LOCATED @ 14 1/4" o.c. Max. OR 1/4 FRAME WIDTH, WHICHEVER IS LESS
	AMC616 & AMC617-127	SASH SNUBBERS	2.50" x .750" x .125" THK.	STEEL	ADVANTAGE	AT SASH & FRAME, LOCATED @ 14 1/4"o.c. Mox. OR 1/4 FRAME WIDTH, WHICHEVER IS LESS
	.}	PHILLIPS PAN HEAD A POINT FASTENER	#10 x 1"	STEEL	VARIES	SASH ASSEMBLY SCREW
12.	FS-328	PHILLIPS PAN HEAD B POINT FASTENER	#10 x 1 1/2"	STEEL	VARIES	FRAME ASSEMBLY SCREW
13.	795	STRUCTURAL SILICONE	CONT. ALL AROUND	SILICONE	DOW CORNING	PERIMETER SEALANT AT FRAME & AT SASH
14.	995	STRUCTURAL SILICONE	CONT. ALL AROUND	SILICONE	DOW CORNING	SASH (.25" SPACE TO GLASS) FILL SEALANT & SASH PERIMETER SEALANT
15.	. <del> </del>	BOX ALUMINUM GLASS SPACER	.375" x .375" x .05"	ALUMINUM		LOCATED AT GLASS EDGES
<u> </u>	FS-53	PHILLIPS ROUND HEAD A POINT FASTENER	#10 x 3/8"	STEEL	VARIES	ATTACH HINGE LEG (BAR) TO SASH & TO FRAME
	476	PHILLIPS PAN HEAD MACHINE SCREW	#10-24 x 5/8"	STEEL	VARIES	ATTACH LOCKING CAM HANDLES
18.	FS-109	PHILLIPS PAN HEAD A POINT FASTENER	#10 x 1/2"	STEEL	VARIES	ATTACH FRAME SNUBBER
19.	FS-56	PHILLIPS PAN HEAD B POINT CAD FASTENER	#10 x 1/2"	STEEL	VARIES	ATTACH KEEPER

BILL OF MATERIALS

